

AMENDMENTS

Listing of Claims:

The following listing of claims replaces all previous listings or versions thereof:

1. (Withdrawn) An isolated nucleic acid molecule consisting essentially of a nucleotide sequence selected from:
 - (a) the nucleotide sequence as set forth in residues 73 to 601 in SEQ ID NO:1;
 - (b) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 194 in SEQ ID NO:2;
 - (c) the nucleotide sequence as set forth in residues 73 to 451 in SEQ ID NO:1;
 - (d) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 144 in SEQ ID NO:2;
 - (e) the nucleotide sequence as set forth in residues 485 to 820 in SEQ ID NO:1;
 - (f) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 113 in SEQ ID NO:2;
 - (g) a nucleotide sequence encoding the polypeptide as set forth in residues 73 to 113 in SEQ ID NO:2;
 - (h) a nucleotide sequence encoding the polypeptide as set forth in residues 156 to 267 in SEQ ID NO:2;
 - (i) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of at least one of (a) to (f), wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2; and

(j) a nucleotide sequence complementary to at least one of (a)-(h).

2. (Withdrawn) An isolated nucleic acid molecule consisting essentially of a nucleotide sequence selected from:

(a) a nucleotide sequence consisting essentially of a nucleotide sequence that is at least about 70, 75, 80, 85, 90, 95, 96, 97, 98, or 99 percent identical to the nucleotide sequence according to claim 1, wherein the nucleotide sequence encodes a polypeptide that has an activity of the polypeptide as set forth in SEQ ID NO:2;

(b) a nucleotide sequence encoding an allelic variant or splice variant of the nucleotide sequence according to claim 1, wherein the encoded polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2;

(c) a nucleotide sequence selected from at least one of (a) and (b) encoding a polypeptide of at least about 25 amino acid residues, wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO:2;

(d) a nucleotide sequence selected from at least one of (a), (b), and (c) comprising a fragment of at least about 16 nucleotides; and

(e) a nucleotide sequence complementary to any of (a), (b), or (c).

3. (Withdrawn) A vector comprising the nucleic acid molecule of claim 1 or claim 2.

4. (Withdrawn) A host cell comprising the vector of Claim 3.

5. (Withdrawn) The host cell of Claim 4 which is a eukaryotic cell.

6. (Withdrawn) The host cell of Claim 4 which is a prokaryotic cell.

7. (Withdrawn) A process of producing an apo-A-1 fragment T-cell activation inhibitor-like polypeptide comprising culturing the host cell of Claim 5 under suitable conditions to express the polypeptide and isolating the polypeptide from the culture.

8. (Withdrawn) A process of producing an apo-A-1 fragment T-cell activation inhibitor-like polypeptide comprising culturing the host cell of Claim 6 under suitable conditions to express the polypeptide and isolating the polypeptide from the culture.

9. (Currently amended) A process for making an apo A-I fragment a T-cell activation inhibitor-like polypeptide fragment polypeptide fragment of apo-A-I, the process comprising the steps of:

I) culturing obtaining a eukaryotic cell comprising a vector encoding said polypeptide fragment of apo-A-I, wherein the encoded polypeptide fragment of apo-A-I is at least 50 amino acids shorter than SEQ ID NO:2, the vector comprising a nucleic acid molecule consisting essentially of a nucleotide sequence selected from the group consisting of:

- (a) the nucleotide sequence as set forth in residues 73 to 582 in SEQ ID NO:1;
- (b) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 194 in SEQ ID NO:2;
- (c) the nucleotide sequence as set forth in residues 73 to 432 in SEQ ID NO:1;
- (d) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 144 in SEQ ID NO:2;
- (e) the nucleotide sequence as set forth in residues 466 to 801 in SEQ ID NO:1;
- (f) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 113 in SEQ ID NO:2;

(g) a nucleotide sequence encoding the polypeptide as set forth in residues 73 to 113 in SEQ ID NO:2;

(h) a nucleotide sequence encoding the polypeptide as set forth in residues 156 to 267 in SEQ ID NO:2; and

(i) a nucleotide sequence encoding a polypeptide having at least 85% identity to the amino acid sequence encoded by the nucleotide sequence of any one of (a) – (h), wherein the polypeptide inhibits tumor necrosis factor (TNF) or interleukin 1 (IL 1) production by monocytes;

(i) a nucleotide sequence complementary to at least one of (a) – (h); and

(j) a nucleotide sequence encoding a polypeptide as set forth in (a) to (h) having one or more conservative amino acid substitutions, wherein the polypeptide inhibits tumor necrosis factor (TNF) or interleukin 1 (IL 1) production by monocytes;

wherein a culture condition suitable for expressing the polypeptide is selected and the polypeptide is isolated from the culture

II) culturing said cell under conditions suitable to express the encoded polypeptide fragment; and

III) isolating the polypeptide fragment from the culture.

10. (Currently amended) A The process of claim 9, wherein the cell is for making an apo A-I fragment T cell activation inhibitor like polypeptide fragment comprising culturing a prokaryotic cell comprising a the vector comprising a nucleic acid molecule consisting essentially of a nucleotide sequence selected from:

(a) the nucleotide sequence as set forth in residues 73 to 582 in SEQ ID NO:1;

(b) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 194 in SEQ ID NO:2;

(c) the nucleotide sequence as set forth in residues 73 to 432 in SEQ ID NO:1;

(d) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 144 in SEQ ID NO:2;

(e) the nucleotide sequence as set forth in residues 466 to 801 in SEQ ID NO:1;

(f) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 113 in SEQ ID NO:2;

(g) a nucleotide sequence encoding the polypeptide as set forth in residues 73 to 113 in SEQ ID NO:2;

(h) a nucleotide sequence encoding the polypeptide as set forth in residues 156 to 267 in SEQ ID NO:2;

(i) a nucleotide sequence complementary to at least one of (a) (h); and

(j) a nucleotide sequence encoding a polypeptide as set forth in (a) to (h) having one or more conservative amino acid substitutions, wherein the polypeptide inhibits tumor necrosis factor (TNF) or interleukin 1 (IL-1) production by monocytes;
wherein a culture condition suitable for expressing the polypeptide is selected and the polypeptide is isolated from the culture.

11. (Withdrawn) The process of Claim 7, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for native apo A-1 operatively linked to the DNA encoding the AFTI polypeptide.

12. (Withdrawn) The process of Claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for native apo A-1 operatively linked to the DNA encoding the AFTI polypeptide.

13. (Withdrawn) The isolated nucleic acid molecule according to Claim 2 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

14. (Withdrawn) A process for determining whether a compound inhibits AFTI polypeptide activity or production comprising exposing a cell according to claim 4 to the compound, and measuring AFTI polypeptide activity or production in said cell.

15. (Currently amended) An isolated T-cell activation inhibitor polypeptide fragment of apo-A-1 that is at least 50 amino acids shorter than SEQ ID NO:2, the fragment comprising ~~fragment T-cell activation inhibitor like polypeptide fragment consisting essentially of an amino acid sequence selected from:~~ (a) an amino acid sequence as set forth in residues 25 to 194 of SEQ ID NO:2; (b) an amino acid sequence as set forth in residues 25 to 144 of SEQ ID NO:2; (c) an amino acid sequence as set forth in residues 156 to 267 of SEQ ID NO:2; (d) an amino acid sequence as set forth in residues 25 to 113 of SEQ ID NO:2; (e) an amino acid sequence as set forth in residues 73 to 113 of SEQ ID NO:2; and (f) ~~a polypeptide an amino acid sequence having at least 85% identity to the amino acid sequences as set forth in (a) to (e) having one or more conservative amino acid substitutions~~, wherein the polypeptide inhibits tumor necrosis factor (TNF) or interleukin-1 (IL-1) production by monocytes.

16. (Currently amended) An isolated T-cell activation inhibitor polypeptide fragment of apo-A-1 that is at least 50 amino acids shorter than SEQ ID NO:2, the fragment being ~~T-cell activation~~

~~inhibitor like polypeptide fragment encoded by a vector, the vector comprising a nucleic acid molecule consisting essentially of a nucleotide sequence selected from the group consisting of:~~

- (1) the nucleotide sequence as set forth in residues 73 to 582 in SEQ ID NO:1;
- (2) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 194 in SEQ ID NO:2 ~~or the polypeptide as set forth in residues 25 to 194 in SEQ ID NO:2 having one or more conservative amino acid substitutions;~~
- (3) the nucleotide sequence as set forth in residues 73 to 432 in SEQ ID NO:1;
- (4) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 144 in SEQ ID NO:2 ~~or the polypeptide as set forth in residues 25 to 144 in SEQ ID NO:2 having one or more conservative amino acid substitutions;~~
- (5) the nucleotide sequence as set forth in residues 466 to 801 in SEQ ID NO:1;
- (6) a nucleotide sequence encoding the polypeptide as set forth in residues 25 to 113 in SEQ ID NO:2 ~~or the polypeptide as set forth in residues 25 to 113 in SEQ ID NO:2 having one or more conservative amino acid substitutions;~~
- (7) a nucleotide sequence encoding the polypeptide as set forth in residues 73 to 113 in SEQ ID NO:2 ~~or the polypeptide as set forth in residues 73 to 113 in SEQ ID NO:2 having one or more conservative amino acid substitutions;~~
- (8) a nucleotide sequence encoding the polypeptide as set forth in residues 156 to 267 in SEQ ID NO:2 ~~or the polypeptide as set forth in residues 156 to 267 in SEQ ID NO:2 having one or more conservative amino acid substitutions; and~~

(9) a nucleotides sequence encoding a polypeptide having at least 85% identity to the amino acid sequence of any one of (2) – (9) or the amino acid sequence encoded by (1);

wherein the nucleotide sequence encodes a polypeptide that inhibits tumor necrosis factor (TNF) or interleukin-1 (IL-1) production by monocytes.

17. (Canceled)

18. (Withdrawn) An antibody produced by immunizing an animal with the polypeptide according to claim 15.

19. (Withdrawn) An antibody or fragment thereof which specifically binds the polypeptide according to claim 15.

20. (Withdrawn) The antibody according to claim 18 which is a monoclonal antibody.

21. (Withdrawn) A hybridoma that produces the monoclonal antibody according to claim 20.

22. (Withdrawn) The antibody of claim 18 which is a humanized antibody.

23. (Withdrawn) The antibody according to claim 19 which is a fully human antibody or a fragment thereof.

24. (Withdrawn) The antibody according to claim 19 which is a chimeric antibody or fragment thereof.

25. (Withdrawn) The antibody according to claim 19 which is a CDR-grafted antibody or fragment thereof.

26. (Withdrawn) The antibody of claim 19 which is an antiidiotypic antibody or fragment thereof.

27. (Withdrawn) The antibody of claim 19 which is bound to a detectable label.

28. (Withdrawn) The antibody of claim 19 which is a phage display antibody or fragment thereof.

29. (Withdrawn) A method of detecting or quantifying the amount of AFTI polypeptide in a sample comprising contacting the sample with the antibody or fragment according to claim 18 and measuring the antibody - polypeptide interaction.

30. (Withdrawn) A selective binding agent or fragment thereof which specifically binds at least one polypeptide according to claim 15.

31. (Withdrawn) The selective binding agent according to claim 30 which is a variable region fragment.

32. (Withdrawn) The selective binding agent according to Claim 31, wherein the variable region fragment is a Fab or a Fab' fragment.

33. (Withdrawn) The selective binding agent according to claim 30 which is bound to a detectable label.

34. (Withdrawn) The selective binding agent according to claim 30 which antagonizes AFTI polypeptide biological activity.

35. (Withdrawn) A method for treating, preventing, or ameliorating a disease, condition, or disorder comprising administering to a patient an effective amount of a selective binding agent according to Claim 30.

36. (Original) A composition comprising the polypeptide according to claim 15 and a pharmaceutically acceptable formulation agent.

37. (Original) A composition comprising the polypeptide according to claim 16 and a pharmaceutically acceptable formulation agent.

38. (Original) The composition according to claim 36, wherein the pharmaceutically acceptable formulation agent comprises at least one of a carrier, adjuvant, solubilizer, stabilizer, or anti-oxidant.

39. (Original) The composition according to claim 37, wherein the pharmaceutically acceptable formulation agent comprises at least one of a carrier, adjuvant, solubilizer, stabilizer, or anti-oxidant.

40. (Original) The polypeptide according to claim 15, which is covalently modified with a water-soluble polymer.

41. (Original) The polypeptide according to claim 40, wherein the water-soluble polymer is selected from polyethylene glycol, monomethoxy-polyethylene glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone) polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide co-polymers, polyoxyethylated polyols, and polyvinyl alcohol.

42. (Original) The polypeptide according to Claim 16, which is covalently modified with a water-soluble polymer.

43. (Original) The polypeptide according to claim 42, wherein the water-soluble polymer is selected from at least one of polyethylene glycol, monomethoxy-polyethylene glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone) polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide co-polymers, polyoxyethylated polyols, and polyvinyl alcohol.

44. (Withdrawn) A viral vector comprising the nucleic acid molecule according to claim 1.

45. (Withdrawn) A viral vector comprising the nucleic acid molecule according to claim 2.

46. (Previously presented) A fusion polypeptide comprising the polypeptide according to claim 15 and a heterologous amino acid sequence selected from an IgG constant domain or fragment thereof, an alkaline phosphatase or a fragment thereof, a *tat* protein, or a FLAG epitope.

47. (Original) The fusion polypeptide according to claim 46, wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

48. (Previously presented) A fusion polypeptide comprising the polypeptide according to claim 16 and a heterologous amino acid sequence selected from an IgG constant domain or fragment thereof, an alkaline phosphatase or a fragment thereof, a *tat* protein, or a FLAG epitope.

49. (Original) The fusion polypeptide according to claim 48, wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

50. (Withdrawn) A method for reducing inflammation in a subject comprising administering to said subject the polypeptide according to claim 15.

51. (Withdrawn) A method for reducing inflammation in a subject comprising administering to said subject the polypeptide according to claim 16.

52. (Withdrawn) A method for reducing IL-1 β secretion in a subject, comprising administering to said subject the polypeptide according to claim 15.

53. (Withdrawn) A method for reducing IL-1 β secretion in a subject, comprising administering to said subject the polypeptide according to claim 16.

54. (Withdrawn) A method for reducing TNF- α secretion in a subject, comprising administering to said subject the polypeptide according to claim 15.

55. (Withdrawn) A method for reducing TNF- α secretion in a subject, comprising administering to said subject the polypeptide according to claim 16.

56. (Withdrawn) A method for treating an IL-1 mediated disease, comprising administering to said subject the polypeptide according to claim 15.

57. (Withdrawn) A method for treating an IL-1 mediated disease, comprising administering to said subject the polypeptide according to claim 16.

58. (Withdrawn) A method for treating a TNF- α mediated disease, comprising administering to said subject the polypeptide according to claim 15.

59. (Withdrawn) A method for treating, preventing, or ameliorating a medical condition involving monocyte activation, said method comprising administering to a subject a molecule selected from at least one of (a) apo-A-I, (b) an apo-A-1 fragment T cell activation inhibitor (AFTI), and (c) a fusion protein comprising SEQ ID NO: 2.

60. (Withdrawn) The method of claim 59, wherein the AFTI is a polypeptide according to claim 15.

61. (Withdrawn) The method of claim 59, wherein the AFTI is a polypeptide according to claim 16.

62. (New) The process of claim 9, wherein the cell comprising the vector is a eukaryotic cell.

63. (New) The process of claim 9, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence selected from the group consisting of (a) through (h).

64. (New) The process of claim 9, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide having at least 90% sequence identity to the amino acid sequence encoded by the nucleotide sequence of any one of (a) – (h).

65. (New) The process of claim 64, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide having at least 95% sequence identity to the amino acid sequence encoded by the nucleotide sequence of any one of (a) – (h).

66. (New) The process of claim 9, wherein the polypeptide fragment is at least 75 amino acids shorter than SEQ ID NO:2.

67. (New) The isolated polypeptide fragment of claim 15, further defined as having an amino acid sequence selected from (a) – (e).

68. (New) The isolated polypeptide fragment of claim 15, having at least 90% sequence identity to the amino acid sequence of any one of (a) – (e).

69. (New) The isolated polypeptide fragment of claim 68, having at least 95% sequence identity to the amino acid sequence of any one of (a) – (e).

70. (New) The isolated polypeptide fragment of claim 15, wherein the polypeptide fragment is at least 75 amino acids shorter than SEQ ID NO:2.

71. (New) The isolated polypeptide fragment of claim 16, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence selected from the group consisting of (1) through (8).

72. (New) The isolated polypeptide fragment of claim 16, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide having at

least 90% sequence identity to the amino acid sequence encoded by the nucleotide sequence of any one of (1) – (8).

73. (New) The isolated polypeptide fragment of claim 72, wherein the vector comprises a nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide having at least 95% sequence identity to the amino acid sequence encoded by the nucleotide sequence of any one of (1) – (8).

74. (New) The isolated polypeptide fragment of claim 16, wherein the polypeptide fragment is at least 75 amino acids shorter than SEQ ID NO:2.